IN THE CLAIMS:

1. (Currently Amended) A ~~Receiver~~ receiver for estimation or compensation of phase imbalance or gain imbalance, the receiver utilizing a QPSK modulation and a modulation scheme based on a complex scrambling code, the receiver comprising means for estimating the phase imbalance or gain imbalance ~~before synchronisation~~ prior to symbol synchronization and for providing estimated and compensated I and Q components of an incoming I/Q modulated signal for symbol synchronization.

2. (Currently Amended)~~Receiver~~The receiver according to claim 1, wherein the means for estimating the phase imbalance or gain imbalance before ~~synchronisation~~ synchronization comprises means for generating at least one first ratio selected from the group consisting of a second ratio, a third ratio and a fourth ratio; wherein second first ratio is a ratio between a cross correlation of said I and Q components ($<I,Q>$) of ~~an~~the incoming I/Q modulated signal and a mean value of a square of the I component ($<I^2>$); wherein the third ratio is a ratio between the cross correlation of the I and Q components and a square root of a product between a mean value of the square of the I component and a mean value of a square of the Q component ($(<I^2><Q^2>)^{1/2}$); and wherein the fourth ratio is a ratio between the mean value of the square of the Q component ($<Q^2>$) and the mean value of the square of the I ($<I^2>$) component.

3. (Currently Amended)~~Receiver~~ The receiver according to claim 1, wherein the means for estimating the phase imbalance or gain imbalance before ~~synchronisation~~ synchronization comprises a low pass for low pass filtering the signals.

4. (Currently Amended)~~Receiver~~ The receiver according to claim 1, further comprising means for compensating the phase imbalance or gain imbalance before ~~synchronisation~~ synchronization based on at least one first ratio selected from the group consisting of a second ratio, a third ratio and a fourth ratio; wherein second first ratio is a ratio between a cross correlation of said I and Q components (<I,Q>) of ~~an~~the incoming I/Q modulated signal and a mean value of a square of the I component ($<I^2>$); wherein the third ratio is a ratio between the cross correlation of the I and Q components and a square root of a product between a mean value of the square of the I component and a mean value of a square of the Q component ($(<I^2><Q^2>)^{1/2}$); and wherein the fourth ratio is a ratio between the mean value of the square of the Q component ($<Q^2>$) and the mean value of the square of the I ($<I^2>$) component.

5. (Currently Amended)~~Receiver~~ The receiver according to claim 1, wherein the receiver ~~is~~comprises a WCDMA (UMTS) receiver and wherein a feed-forward scheme or a feed-back scheme is established in the receiver.

6. (Currently Amended)~~Receiver~~ The receiver according to claim 1, wherein the estimation of the phase imbalance or gain imbalance is carried out iteratively.

7. (Currently Amended) ~~Method~~A method for estimation or compensation of phase imbalance or gain imbalance in a receiver utilizing a QPSK modulation and a modulation scheme based on a complex scrambling code, the demodulation method

comprising the step of: estimating the phase imbalance or gain imbalance before ~~synchronisation~~ symbol synchronization; and

compensating the phase imbalance or gain imbalance on the basis of the at least one first ratio such that a feed-forward scheme or a feed-back scheme is established;

wherein estimated and compensated I and Q components of an incoming I/Q modulated signal are provided for symbol synchronization.

8. (Currently Amended)~~Method~~ The method according to claim 7, further comprising the step of: determining at least one first ratio selected from the group consisting of a second ration, a third ratio and a fourth ratio; wherein second first ratio is a ratio between a cross correlation of I and Q components (<I,Q>) of an incoming I/Q modulated signal and a mean value of a square of the I component ($<I^2>$); wherein the third ratio is a ratio between the cross correlation of the I and Q components and a square root of a product between a mean value of the square of the I component and a mean value of a square of the Q component ($(<I^2><Q^2>)^{1/2}$); and wherein the fourth ratio is a ratio between the mean value of the square of the Q component ($<Q^2>$) and the mean value of the square of the I ($<I^2>$) component.

9. (Canceled)

10. (Currently Amended)~~Method~~ The method according to claim 7, wherein the estimation of the phase imbalance or gain imbalance is carried out iteratively.

11. (Currently Amended) ~~Computer~~A computer program for estimation or compensation of phase imbalance or gain imbalance in a receiver utilizing a QPSK modulation and a modulation scheme based on complex scrambling code comprising machine-readable code on machine readable media for performing, ~~the computer program comprising~~ the step of: estimating the phase imbalance or gain imbalance before ~~synchronisation~~ symbol synchronization; and

providing estimated and compensated I and Q components of an incoming I/Q modulated signal for symbol synchronization.

12. (Currently Amended)~~Method~~A method of iteratively compensating a phase imbalance or gain imbalance in a receiver, the receiver utilizing a QPSK modulation and a modulation scheme based on a complex scrambling code, comprising the steps of: a) determining an error function on the basis of samples of phase compensated in-phase components and quadrature components of a revived I/Q modulated signal; b) filtering the error function; c) integrating the filtered error function; d) determining a modified error function by adding the integrated and filtered error function to a product of the integrated and filtered error function and a parameter based on speed and stability; e) determining a corrected output signal of the I/Q components of the received signal on the basis of subsequent samples of phase compensated in-phase components and quadrature components of the received I/Q modulated signal and the modified error function; and f) returning to step a); and

providing estimated and compensated I and Q components of an incoming I/Q modulated signal to a symbol synchronizer for synchronization.

13. (Currently Amended)~~Method~~ A method of iteratively compensating a phase imbalance or gain imbalance in a receiver, the receiver utilizing a QPSK modulation and a modulation scheme based on a complex scrambling code, comprising the steps of: a) determining an error function on the basis of squared samples of phase compensated in-phase components and quadrature components of a received I/Q modulated signal; b) filtering the error function; c) integrating the filtered error function; d) determining a modified error function by adding the integrated and filtered error function to a product of the integrated and filtered error function and a parameter based on speed and stability; e) determining a gain on the basis of a product of the modified error function and a factor; f) determining a corrected output signal of the I/Q components of the received signal on the basis of subsequent samples of phase compensated in-phase components and quadrature components of the received I/Q modulated signal and the gain; and g) returning to step a):and

providing estimated and compensated I and Q components of an incoming I/Q modulated signal to a symbol synchronizer for synchronization.

14. (New) The receiver according to claim 1, further comprising means for symbol synchronization which receives the estimated and compensated I and Q components and performs synchronization of the components.

15. (New) The receiver according to claim 14, wherein said means for synchronization comprises a Universal Mobile Telecommunications System (UMTS) synchronizer.